AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (previously presented): A medical apparatus, comprising:

a hollow cylinder defining an inner diameter, an outer diameter, and a radial thickness;

open cells removed from the hollow cylinder defining generally longitudinal members in remaining material of the cylinder and defining connection points between adjacent longitudinal members, the connection points not being created by spot welding or film gluing and lacking bulk and stress concentrations associated with conventional joint techniques; and

at least a pair of adjacent generally longitudinal members each having a circumferential width, wherein the radial thickness is greater than the circumferential width.

Claim 2 (previously presented): The medical apparatus of claim 1, wherein each generally longitudinal member joins with adjacent generally longitudinal members to form merge sections.

Claim 3 (previously presented): The medical apparatus of claim 2, wherein the generally longitudinal members and merge sections form a continuous cylindrical structure.

Claim 4 (withdrawn): The medical apparatus of claim 2, wherein each generally longitudinal member only joins with opposing adjacent members at opposing ends of the generally longitudinal member.

Claim 5 (previously presented): The medical apparatus of claim 2, wherein each generally longitudinal member alternately joins with alternating adjacent generally longitudinal members throughout the length of the generally longitudinal member.

Claim 6 (previously presented): The medical apparatus of claim 1, wherein the generally longitudinal members each comprise:

Claim 7 (previously presented): The medical apparatus of claim 1, wherein the generally longitudinal members each comprise:

at least three curved sections each joined end-to-end with curved sections having opposing curvature.

Claim 8 (previously presented): The medical apparatus of claim 1, further comprising:

a compressed condition defining a reduced inner diameter and outer diameter, wherein the endoprosthesis is capable of compression to the compressed condition.

Claim 9 (previously presented): The medical apparatus of claim 1, further comprising:

an expanded condition defining an increased inner diameter and outer diameter, wherein the endoprosthesis is capable of expansion to the expanded condition.

Claim 10 (previously presented): The medical apparatus of claim 9, wherein the expanded condition further defines a conical shape of the endoprosthesis.

Claim 11 (withdrawn): The medical apparatus of claim 1, wherein the circumferential width of at least one generally longitudinally extending member varies along a length thereof.

Claim 12 (previously presented): A single-piece cylindrical endoprosthesis comprising:

a plurality of circumferential spaced beams each defining a longitudinal length, a forward end, a rear end, and a radial thickness, at least a pair of adjacent circumferential spaced beams each having a circumferential width less than the radial thickness;

a plurality of forward merge sections formed by the front ends of two adjacent beams; and

a plurality of aft merge sections formed by the rear ends of two adjacent beams;

whereby the combination of beams, forward merge sections and aft merge sections form a continuous cylindrical structure and define connection points not being created by spot welding

or film gluing and lacking bulk and stress concentrations associated with conventional joining techniques.

Claim 13 (previously presented): The endoprosthesis of claim 12, further comprising:

a plurality of middle merge sections formed from the intermittent joining of adjacent beams.

Claim 14 (previously presented): The endoprosthesis of claim 12, wherein the beams further define at least one pair of curved sections of opposing curvature joined end-to-end.

Claim 15 (previously presented): The endoprosthesis of claim 14, wherein the point at which the curved sections meet defines an inflection point.

Claim 16 (withdrawn): The endoprosthesis of claim 12, wherein the circumferential width of at least one beam is varied along its length.

Claim 17 (previously presented): A single piece endoprosthesis comprising:

a plurality of longitudinal beams connected in a cylindrical structure to define connection points not being created by spot welding or film gluing and lacking bulk and stress concentrations associated with conventional joining techniques, at least a pair of adjacent longitudinal beams each having a circumferential width and a radial thickness, wherein the radial thickness is greater than the circumferential width;

an expanded configuration wherein each beam is mostly curved throughout its length.

Claim 18 (withdrawn): The endoprosthesis of claim 17, wherein the beams are prevented from overlapping in the compressed configuration by having a thickness greater than their width.

Claim 19 (withdrawn): The endoprosthesis of claim 18, wherein each beam defines a width and a thickness which at least one-third times the width.

Claim 20 (previously presented): The endoprosthesis of claim 17, wherein the beams are continuously curved when in the expanded condition.

Claim 21 (withdrawn): The endoprosthesis of claim 17, wherein the beams are uniformly bent throughout their length when in the expanded condition.

Claim 22 (previously presented): The endoprosthesis of claim 17, wherein the beams are free from stress concentrations in the expanded configuration.

Claim 23 (previously presented): The endoprosthesis of claim 17, wherein the expanded configuration defines a conical shape.

Claim 24 (withdrawn): The endoprosthesis of claim 17, wherein at least one beam has a thickness that varies along its length.

Claim 25 (withdrawn): A method of manufacturing a compressible endoprosthesis from a hollow cylindrical tube having a radial thickness, comprising the steps of:

defining a pattern for a cell comprising two sides each having at least two curves and an inflection point;

defining a pattern of the cells along the length and circumference of the cylindrical tube such that the areas between the cells are elongated and have a circumferential width substantially less than the radial thickness; and

removing the material of the cylinder within each cell.

Claim 26 (withdrawn): The method of claim 25, wherein the pattern for the cell has an almond shape.

Claim 27 (withdrawn): The method of claim 25, wherein the removal step includes chemically etching the material within the cells.

Claim 28 (withdrawn): The method of claim 25, wherein the removal step includes laser cutting along the pattern.

Claim 29 (withdrawn): The method of claim 25, wherein the removal step includes electrical discharge machining of the material within the cells.

Claim 30 (withdrawn): The method of claim 25, wherein the defining a pattern of the cells step includes defining half-cells at each end of the tube.

Claim 31 (withdrawn): The method of claim 25, wherein the defining a pattern of the cells step includes longer cells at one end of the cylinder.

Claim 32 (withdrawn): The method of claim 25, further comprising the steps of:

stretching the cylindrical tube over a mandrel; and

annealing the cylindrical tube.

Claim 33 (withdrawn): The method of claim 32, wherein the mandrel has a conical shape.

Claim 34 (withdrawn): The method of claim 25, further comprising the steps of:

cutting the tube radially to form a first end of the compressible endoprosthesis; and

cutting the tube radially to form a second end of the compressible endoprosthesis.

Claim 35 (withdrawn): The method of claim 34, wherein the first end and the second end of the compressible endoprosthesis are one-half cell apart.